United States Patent [19]

Freeman

[11] **3,919,773**

[45] **Nov. 18, 1975**

[54] **DIRECT MOLDABLE IMPLANT MATERIAL**

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[22] Filed: **Dec. 20, 1973**

[21] Appl. No.: **426,899**

[52] **U.S. Cl.**..... **32/10 A;** 32/15; 128/92 C

[51] **Int. Cl.**[2]..... **A61C 13/00**

[58] **Field of Search**..... 32/10 A, 15; 128/92 C, 128/92 CA; 3/1.9–1.93, 1

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[57] **ABSTRACT**

A direct dental implant composition and placement method is disclosed. In the present method a moldable, polymerizable material is inserted into the tooth socket immediately after the tooth has been extracted. Being moldable, the material conforms to and substantially fills the socket. Prior to inserting the moldable material into the socket, the surface of the material is coated or dusted with particulate calcium sulfate which becomes embedded in the outer surface of the moldable material adjacent the wall of the tooth socket when the implant material is placed in the tooth socket. The particulate is dissolvable in body fluids so that eventually minute voids develop in the outer surface of the hardened or set implant. These voids promote tissue attachment to firmly anchor the implant. Thereafter, a crown or other suitable restoration may be applied to the implant.

In another embodiment, a mechanical device is inserted into the material prior to hardening to provide a mechanical anchor for a crown or other appliance.

Also disclosed is a modification permitting use of the material as a bone cement for the fixation of orthopedic appliances or as a bone implant to replace missing bone, reinforce weakened bone tissue or reshape malformed bone structure.

17 Claims, No Drawings